

Werribee Level Crossing Removal Project

Werribee, VIC

Up to 2,500mm large diameter piles installed in complex ground conditions including the introduction of Thermal Integrity Profiling equipment to assess pile quality



The project

The latest in a number of level crossing removal projects that Keller have been involved in, Werribee St LXP is designed to relieve significant congestion with a rail-over-road solution. Keller were contracted to supply and construct bored piles up to 2,500mm in diameter founding into high-strength basalt.

The challenge

Due to the extremely rigid constraints of the construction programme Keller needed to mobilise, construct, test and verify the piles all within a very small working window. Adding to the challenges were COVID lockdown restrictions, requiring the management team to work remotely from site and comply with the latest government regulations.

The solution

Keller's Global Product Team were enlisted to assist with carrying out Plaxis 3D modelling to assess the stability of the large diameter open bore piles therefore minimising the required length of temporary casing. Thermal Integrity Profiling equipment was purchased to rapidly assess pile quality. Detailed risk assessments were developed addressing working under rail occupation, 24-hour operations and COVID management plans.

Project facts

Owner(s)

Rail Projects Victoria

Keller business unit(s)

Keller Australia

Main contractor(s)

Western Program Alliance (McConnell Dowell)

Solutions

Heavy foundations

Markets

Infrastructure

Techniques

Bored piles